COMPLETE LISTING OF ALL CLAIMS IN THE APPLICATION

1. (currently amended) An isolated nucleic acid ~~sequence~~ which codes for a polypeptide having nitrilase activity, selected from the group consisting of:

a) a nucleic acid ~~having the sequence~~ depicted in SEQ ID NO: 1,

b) a nucleic acid ~~sequences which are derived from the nucleic acid sequence depicted in SEQ ID NO: 1~~ which codes for the polypeptide depicted in SEQ ID NO: 2 ~~as a result of the degeneracy of the genetic code~~,

c) ~~derivatives of the~~ a nucleic acid ~~sequence depicted in SEQ ID NO: 1,~~ which codes for a polypeptides having ~~the amino acid sequences depicted in SEQ ID NO: 2 and have~~ at least 97% homology to SEQ ID NO: 2 ~~at the amino acid level~~, with negligible reduction in the enzymatic action of the polypeptides.

2. (currently amended) An isolated ~~amino acid sequence~~ polypeptide encoded by a nucleic acid ~~sequence~~ as claimed in claim 1.

3. (currently amended) An isolated ~~amino acid sequence~~ polypeptide as claimed in claim 2, encoded by the nucleotide sequence depicted in SEQ ID NO: 1.

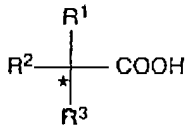
4. (currently amended) A nucleic acid construct comprising a nucleic acid ~~sequence~~ as claimed in claim 1, the nucleic acid ~~sequence~~ being linked to one or more regulatory signals.

5. (currently amended) A vector comprising a nucleic acid ~~sequence~~ as claimed in claim 1.

6. (currently amended) A transformed microorganism comprising at least one nucleic acid ~~sequence~~ as claimed in claim 1.

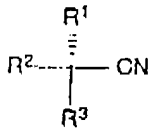
7. (currently amended) A transformed microorganism comprising at least one nucleic acid ~~sequence~~ as claimed in claim 1.

8. (currently amended) A process for preparing chiral carboxylic acids of the general formula I



(I),

which comprises converting the corresponding racemic nitriles of the general formula II



(II)

in the presence of an isolated polypeptide or protein having the amino acid sequence of SEQ ID NO: 2 ~~as claimed in claim 2~~, and where at least 25 mmol of nitrile are converted per h and per mg of protein, or 25 mmol of nitrile are converted per h and per g of dry weight, into the chiral carboxylic acids, where the substituents and variables in the formulae I and II have the following meanings:

* an optically active center

R^1, R^2, R^3 independently of one another hydrogen, substituted or unsubstituted, branched or unbranched C_1-C_{10}-alkyl, C_2-C_{10}-alkenyl, substituted or unsubstituted aryl, hetaryl, OR^4 or NR^4R^5 and where the radicals R^1, R^2 and R^3 are always different.

R^4 hydrogen, substituted or unsubstituted, branched or unbranched C_1-C_{10}-alkyl, C_2-C_{10}-alkenyl, C_1-C_{10}-alkylcarbonyl, C_2-C_{10}-alkenylcarbonyl, aryl, arylcarbonyl, hetaryl or hetarylcarbonyl,

R^5 hydrogen, substituted or unsubstituted, branched or unbranched C_1-C_{10}-alkyl, C_2-C_{10}-alkenyl, aryl or hetaryl.

9. (original) A process as claimed in claim 8, wherein one of the substituents R^1, R^2 or R^3 is OR^4.

10. (previously presented) A process as claimed in claim 8, wherein one of the substituents R^1, R^2 or R^3 is aryl.

11. (previously presented) A process as claimed in claim 8, wherein the process is carried out in an aqueous reaction solution at a pH between 4 and 11.

12. (previously presented) A process as claimed in claim 8, wherein from 0.01 to 10% by weight of nitrile or from 0.01 to 10% by weight of a corresponding aldehyde or ketone and from 0.01 to 10% by weight of hydrocyanic acid are reacted in the process.

13. (previously presented) A process as claimed in claim 8, wherein the process is carried out at a temperature between 0°C and 80°C.

14. (previously presented) A process as claimed in claim 8, wherein the chiral carboxylic acid is isolated from the reaction solution in yields of from 60 to 100% by extraction or crystallization or extraction and crystallization.

15. (previously presented) A process as claimed in claim 8, wherein the chiral carboxylic acid has an optical purity of at least 90%.